CORE
Metadata, citation and similar papers at core.ac.uk
Provided by University of Louisville

University of Louisville
ThinkIR: The University of Louisville's Institutional Repository

Doctor of Nursing Practice Papers
School of Nursing

8-2019

Increasing the Confidence of Primary Care Nurse Practitioner Students in Caring for Patients with Preexisting Opioid Use Disorder

Christopher T. Hannon
University of Louisville, hannon.christopher@gmail.com

Follow this and additional works at: https://ir.library.louisville.edu/dnp

 Part of the Nursing Commons

Recommended Citation
Hannon, Christopher T., "Increasing the Confidence of Primary Care Nurse Practitioner Students in Caring for Patients with Preexisting Opioid Use Disorder" (2019). *Doctor of Nursing Practice Papers.* Paper 11.
Retrieved from https://ir.library.louisville.edu/dnp/11

This Doctoral Paper is brought to you for free and open access by the School of Nursing at ThinkIR: The University of Louisville's Institutional Repository. It has been accepted for inclusion in Doctor of Nursing Practice Papers by an authorized administrator of ThinkIR: The University of Louisville's Institutional Repository. This title appears here courtesy of the author, who has retained all other copyrights. For more information, please contact thinkir@louisville.edu.

INCREASING THE CONFIDENCE OF PRIMARY CARE NURSE PRACTITIONER STUDENTS IN CARING FOR PATIENTS WITH PREEXISTING OPIOID USE DISORDER

by

Christopher T. Hannon

Paper submitted in partial fulfillment of the requirements for the degree of

Doctor of Nursing Practice

University of Louisville

School of Nursing

Date Finalized

Signature DNP Project Chair	August 7, 2019 Date
Signature DNP Project Committee Member	7 August 2019 Date
Signature Program Director	8-13-19 Date
Signature Associate Dean for Academic Affairs	8-7-19 Date

Acknowledgements

I would like to thank my project committee for their continued support and encouragement this project and in my preparation as a doctoral student: Dr. Ruth Staten and Dr. Mary-Beth Coty. I would also like to thank Dr. Catherine Batscha for assisting and accommodating me with the implementation of this project and Ms. Amy Spain-Duncan for her participation, guidance and expertise. A special thanks is also in order for the members of my PMHNP cohort who were a continuous source of support through this process.

On a personal level, I would like to thank my wife, Nicole, my family, and all those who contributed to, inspired, and guided this project who would prefer to remain anonymous.

Table of Contents

Abstract

Background: In the United States, more people die from drug overdoses related to increased heroin and fentanyl use than homicides and car accidents combined (Sederer & Marino, 2018). Frustrations and negative perceptions (stigma) on behalf of primary healthcare providers may result in negative health outcomes for patients, poor therapeutic relationships and lack of opportunity to engage clients in substance use treatment (Khenti et al., 2017).

Purpose: The purpose of this project was to implement a contact-didactic education module to improve adult gerontology primary care (AGPCNP) and family nurse practitioner (FNP) students' attitudes towards OUD patients, and to increase their therapeutic commitment to and confidence in working with patients seeking primary care treatment with co-occurring opioid use disorders.

Methods: The project utilized a pre and post-test design. The Drug and Drug Problems Questionnaire (DDPPQ) and a nurse practitioner confidence scale (NPCS) were administered pre and post intervention to AGPCNP and FNP students finishing their second year of a Doctor of Nursing Practice (DNP) program.

Significance: The implemented education module resulted in statistically significant decrease in scores on the DDPPQ, indicating reduced stigma, and increased NPCS scores indicating increased confidence. A statistically significant inverse correlation was noted between NPCS scores and DDPPQ scores.

Keywords: opioid use disorder, substance use disorder, primary care, stigma, social capital, attitudes, nursing education, therapeutic relationship

Increasing the Confidence of Primary Care Nurse Practitioner Students in Caring for Patients with Preexisting Opioid Use Disorder

Background and Significance

The opioid crisis in the United States continues and opioid related mortality rates nationwide remain staggering. With an increase in opioid use comes comorbid illnesses. The combined impact leads to greater interaction with healthcare providers in primary care clinics, including adult-gerontology primary care (AGPCNP) and family nurse practitioners (FNP), who are increasingly prominent in the healthcare workforce. This increased interaction with health care providers presents an opportunity to improve the response to the opioid crisis and increase the skills and knowledge needed to care for these individuals.

In 2013, 4.3 million persons aged 12 and older had an illicit drug use disorder (Crowley & Kirschner, 2015). By 2016, this number had increased to 7.4 million people, with 2.1 million of these individuals having an opioid use disorder (Ahrnsbrak, Bose, Hedden, Lipari, & Park-Lee, 2017). This is a substantial increase in just a three-year timeframe. An estimated 142 people in the U.S. die from drug overdoses every day, due to the increased use of heroin and fentanyl additives; more than motor vehicle accidents and homicides combined (Sederer & Marino, 2018). Risk of mortality for individuals with opioid use disorders have risen to 20 times higher than that of the general population, and opioid mortality rates in general have skyrocketed-particularly with the surge in prescription opioid misuse over the last 20 years (Watkins, et al., 2017). This spike is alarming, and the numbers suggest the problem becoming more widespread throughout the United States.

Kentucky is tied for third highest in deaths related to drug overdose per capita nationwide (Hauser, 2017). Rates of overdose fatalities in the state of Kentucky reached 1,404 as of June 2017; and Jefferson county had the most overdose deaths of any county in the state (Tilley & Ingram, 2018). The Louisville Metro area has been particularly hard hit. In early February of 2017, there was a 32-hour period during which Emergency Medical Services (EMS) responded to approximately two overdose calls per hour; annual instances of EMS calls for overdose had risen to 6,879 in 2016 (Hauser, 2017). Beyond this alarming trend, as a result of the increase in intravenous (IV) drug use, out of 220 counties in the entire United States with increased vulnerability to Human Immunodeficiency Virus (HIV) and Hepatitis C Virus (HCV) dissemination, 54 of these were in Kentucky (Centers for Disease Control and Prevention [CDC], 2018).

While overdose rates are obvious, comorbid conditions related to long-term OUDs are often overlooked by the general public as well as the healthcare industry. These comorbid illnesses are debilitating and often require medical attention or hospitalization- they run the gamut from injection site infections and abscesses to HIV and HCV. It is worth noting here that OUDs are a subset of general SUDs and, while the research often broadens the scope to examine SUDs in general, for the purposes of this paper the terms will be used interchangeably as the stigma and disease process components are equally relevant. The rise of the opioid epidemic has led to increased contact with the medical community as these patients seek or require treatment for complications related to persistent opioid use (Dion, 2015). This increase in medical intervention, particularly in primary care settings, presents an opportunity for AGPCNPs and FNPs to intervene.

Unfortunately, healthcare providers often hold prejudiced views towards OUD patients. This is not exclusive to AGPCNPs and FNPs; however. According to van Boeckel, Brouwers, Weeghel, and Garretsen (2013), healthcare professionals who do not specialize in addiction, when compared to psychiatrists and addiction specialists, are more likely to view OUD as a character flaw and not a medical problem, and had the lowest regard for working with this population. This is problematic if the hope is for the medical community to intervene and reduce the impact of this epidemic. These challenges can lead to poor patient outcomes, lower patient satisfaction scores, frustrated staff, as well as missed opportunities for meaningful and effective intervention.

Stigma is among the most pervasive, yet least discussed, issues facing healthcare today. It is considered to be a mark of shame and disqualifying characteristic concerning an individual in the eyes of a larger group. Stigma is based in social relationships and pervades all levels of culture (Pescosolido & Martin, 2015). This means that nobody is immune to stigma, and every member of society is impacted in some way. The process by which this occurs consists of the labelling of a stigmatized group, and the association of said labels with other negative qualities; these individuals are thus given a lower social status (Kennedy-Hendricks et al., 2017). While stigma touches the life of every person in a society, there are groups who tend to be disproportionately affected. As stigma is a function of society and culture, it necessarily varies based on these norms changing over time. At present, however, chief among those disproportionately affected are patients with mental health disorders and, specifically, SUDs/OUDs. There were three million federal and state prison admissions between 2003 and 2011 related to or involving illicit substances, and this contributes to the stigmatization of SUD

as moral weakness rather than a medical disorder requiring health care intervention (Wakeman & Rich, 2018).

Most healthcare professionals enter the field with high ideals or, at the least, good intentions. Healthcare providers are not immune to stigmatizing beliefs or behaviors. While stigma of persons with substance use disorders is widespread, in health care settings this stigma leads to missed opportunities to assist the patient in attaining improved health outcomes (Khenti et al., 2017). Stigma among primary healthcare providers in care provision for persons with opioid use disorders can lead to frustration among the providers and negative outcomes for the patients (van Boekel, Brouwers, van Weeghel, & Garretsen, 2013; Dion, 2015). It is important to note, however, that research demonstrates that it is possible to reduce stigma and increase nurse practitioner confidence in providing care for this population.

In general, people are far more likely to hold negative beliefs and attitudes toward individuals with SUDs when compared to other emotional or mental health issues (Henderson & Dressler, 2017). It therefore stands to reason that patients with OUD, having experienced stigma in life, will anticipate it in seeking help. Unfortunately, the research suggests that stigma continues to be demonstrated towards patients with OUDs in healthcare settings across the United States. Stigmatization in healthcare settings has a range of poor patient outcomes, from coercive treatment of this patient population, to being provided with insufficient information, to patronization and humiliation (Khenti et al., 2017).

Patients experiencing SUDs and OUDs may avoid seeking treatment or assistance from the medical community as a result of the stigma they live with day-to-day (Henderson & Dressler, 2017). The complications associated with stigma are often internalized, leading to poor self-esteem, and, as a result, lower levels of social functioning (Ersöğütçü & Karakas, 2016).

Self-stigmatization creates a self-fulfilling and detrimental cycle as increased stigma leads to decreased social functioning, which can reinforce and worsen stigma. According to Kulesza, Watkins, Ober, Osilla, and Ewing (2017), there is evidence to suggest that internalized stigma is positively correlated with substance use problems in primary care patients, as well as poor health outcomes in general.

The opioid crisis is multi-faceted and complex. The engagement of health care providers will be an imperative piece of any initiative to combat the situation. The prejudices and frustration on behalf of primary healthcare providers is important to address for that very reason. Some of these prejudices are difficult to quantify, but the evidence supports that many of these issues can be addressed through contact with persons who are successful in recovery, resulting in stigma reduction and increased provider confidence.

Problem Statement

OUD's are on the rise across the country and this has led to increased contact with general practitioners. As adult gerontology primary care and family nurse practitioners have a larger role in the primary care workforce, there has been increased contact between these providers and persons with OUDs as they seek treatment for comorbid medical conditions. A lack of understanding of OUDs or effective communication strategies to successfully employ can lead to stigmatic views towards persons experiencing OUDs and a lack of therapeutic commitment. Therapeutic commitment is an inclination towards providing therapeutic care to patients with OUDs. The stigma experienced by this population in dealing with primary care providers then dissuades the seeking out of healthcare, ignores an opportunity for meaningful intervention, perpetuates the cycle of stigma and continued negative outcomes for the individual,

the family and the community. This state of affairs cannot continue if the medical community hopes to intervene concerning the opioid crisis and save lives.

Summary of Evidence

Electronic databases CINAHL, Medline via PubMed, and Psycinfo were searched utilizing the keywords: opioid use disorder, substance use disorder, stigma, social capital, attitudes, nursing education, and therapeutic relationship in various combinations. The articles that were selected focused on either stigma, were related to SUD, OUD, and mental illness, or addressed successful methods in addressing stigma and negative attitudes towards SUD, OUD, or mental illness. All 30 articles included were published in the last twenty-three years, with 24 of these in the last six years. The articles consisted of descriptive, qualitative, meta analyses, and cohort studies. Additionally, there was one doctoral dissertation included and a PowerPoint presentation concerning effective communication techniques.

Educational Interventions

The research supports the notion that the implementation of a mixed methods training program focusing on communication strategies, biopsychosocial, and sociocultural aspects of SUDs/OUDs with additional contact-based education could reduce stigma and increase confidence levels in providing care for patients with co-occurring OUD/SUD. It also underscores the negative impact that stigma has on this population and the negative health outcomes associated therewith.

There is strong evidence to suggest that the contact-based education approach, is a critical component in addressing the issue of stigma among healthcare providers. Contact-based education utilizes contact with a representative of the population to glean insight into the lived experience of the broader population he/she represents. In this project, a healthcare professional

living with and managing a substance use disorder provided education on stigma and OUDs. According to the National Academies of Sciences, Engineering, and Medicine, (2016), the evidence shows a consistent inverse relationship between contact interventions and levels of stigma. A meta-analysis completed by Corrigan, Michaels, Rafacz, and Rusch (2012), demonstrated that effect sizes for contact-based education and trainings on attitude change and intended behaviors were twice those which utilized education alone. The notion that people who are living with and successfully managing mental or substance use disorders are extremely potent resources in reducing stigma has been validated in numerous research studies, and this paradigm for delivering a message has proven to be extremely powerful in promoting empathy-helping lessen or eliminate stigma on behalf of the target audience (National Academies of Sciences, Engineering, and Medicine, 2016).

Stigma and Bias

Capurso and Shorter (2017) discussed the belief that mental illness and substance use disorders are moralistic rather than biological concerns as contributory to stigma, and a substantial bias to be overcome. Furthermore, according to Bartlett, Brown, Shattell, Wright, and Lewallen (2013), recognizing substance use disorders as a disease like any other will be imperative to the alleviation of stigma and, indeed, any progress towards alleviation of the condition itself. Emphasizing the neurological changes that occur in the brain with OUD's provided a scientific framework through which to view the condition and provide a rationale for a scientific, as opposed to moralistic, appraisal of the condition.

Biopsychosocial Education

The biopsychosocial issues related to substance use disorders and communication strategies have been identified as important points for education and training as it relates to

improving nurse confidence levels (Nash et al., 2017). A study by Anda et al., (2006), illustrated the link between adverse childhood experiences and the development of substance use disorders, with four or more of these experiences strongly correlated to IV drug use in adulthood. This type of biopsychosocial training module has also demonstrated efficacy in stigma reduction. According to Griffiths, Carron-Arthur, Parsons, and Reid (2014), there was a statistically significant reduction in stigma resulting from educational interventions even when performed alone across a variety of mental health conditions. Furthermore, a recent Harvard study recommended didactic education in attempting to improve attitudes among psychiatric residents towards SUD patients (Avery & Zerbo, 2015).

Communication Techniques

Communication techniques, specifically those incorporating motivational enhancement, have been effective in improving nurse-patient interactions with patients experiencing OUD/SUD (Fornili, Burda & Selby, 2018). Motivational enhancement techniques enable healthcare workers to meet the patient where he/she is regarding readiness to change behavior and maximize the motivation to move towards this behavior change. Approaching patients in a therapeutic manner is imperative if we hope to combat the opioid crisis. There is evidence to suggest that even if patients are not amenable to receiving information about drug treatment or are not interested in stopping substance use at the time of hospitalization, they will reap positive benefit by simply having the subject approached in a compassionate manner with information about treatment options provided (Bartlett et al, 2013).

Theoretical Framework

This education intervention was guided by the Framework Integrating Normative Influences on Stigma (FINIS) (Pescosolido & Martin, 2015). FINIS considers the factors that

drive stigma, most basically, as the interface between individual and community influences. There are three levels of influence, micro, meso and macro. The micro level involves psychological and sociocultural factors on the individual level- the individual AGPC/FNP. The meso level includes social networks and organizations, the healthcare and professional environment. The macro level consists of society wide factors, historical, media and policy environment. These set the process of stigmatization in motion and define the creation and maintenance of stigma across a host of avenues.

FINIS helped focus this intervention on two of these levels: micro and meso (Pescosolido, Martin, Lang, & Olafsdottir, 2008). It is a bottom to top approach beginning at a largely grassroots level with the hope of influencing attitudes and increasing knowledge levels specifically at a point where individual and community influences converge and coexist. Stigma is a phenomenon of social norms, relationships, and culture, so it is necessary for solutions seeking to address stigma to focus on social relationships and the structures underpinned by these stigmatic views (Pescosolido & Martin, 2015). In the case of this intervention, these structures and relationships consisted of the primary healthcare provider (specifically, the AGPCNP and FNP students) as representatives of the healthcare system on the meso level and the patient-provider relationship on the micro or individual level.

Purpose

The purpose of this quality improvement project was to implement a contact-education training on OUDs, with the goal of reducing stigma among ACPCNPs and FNPs students who will be entering practice in primary care and caring for patients with co-occurring OUDs. Additionally, objectives included an increase in therapeutic commitment to and an improvement of attitude towards patients with comorbid OUD. Increased therapeutic commitment and

improved attitudes towards working with patients with co-occurring OUDs increase the likelihood of patients with OUDs receiving compassionate care and being guided towards positive health care outcomes. Improved understanding of addiction, with improved communication and confidence may result in a more empathetic and accessible health care system.

Methods

Setting and Organizational Assessment

The setting was a class session in the course on Mental Health in Primary Care for FNP and AGPCNP students at a southeastern, metropolitan university in a DNP program.

Participants

The target population was graduate nursing students attending a course on mental health in primary care for AGPCNP and FNP students in the sixth semester of a three-year DNP program. Exclusion criteria included enrollment in another specialty not focused on primary care. There was no requirement of any kind to participate in the survey, and this was made clear prior to survey distribution to all participants. All 17 students participated in the class as part of the requirement for the course, but completion of the surveys was strictly voluntary.

Intervention

The education module took 100 minutes and was divided into short teaching segments as follows: 10 minutes for initial survey completion, 30 minutes for the contact-based component, 30 minutes for the didactic component, 20 minutes to practice the communication techniques, and 10 minutes to administer the post test. The contact-based component of the intervention consisted of a brief presentation on OUD by a registered nurse who was successfully living with and managing SUD. The contact-based presentation reviewed the typical presentation of persons

with OUD/SUD and their similarity to other chronic conditions that are often similar to issues with periods of remission and exacerbation or adherence (e.g., diabetes and chronic obstructive pulmonary disease). Issues surrounding the resources available to a patient with OUD were also reviewed. The speaker presented her background with SUD, and she emphasized the importance of instilling hope and providing resources. This gave the participants the opportunity to connect with the human face of addiction and the importance of compassionate care in helping persons of OUD lead healthy lives.

The didactic presentation considered OUD from a biopsychosocial perspective- it was solution-oriented, connecting current health and social issues with continued substance use, an emphasis on harm reduction strategies, and practice with communication strategies to promote a non-judgmental relationship. The biological components centered on the concepts of tolerance, withdrawal and delay discounting, specifically as they relate to behaviors in seeking primary care treatment in this patient population. Delay discounting refers to the extent to which a given reward loses perceived value based on the length of time it will take to acquire it. It is a phenomenon often augmented in patients who are dealing with OUD (Karakula et al., 2016). In decision making processes, the immediacy in receiving the reward weighs heavily (Matta, Gonçalves, & Bizarro, 2012). An example of delay discounting is in one spending money on an expensive car to be enjoyed right away as opposed to saving for a more comfortable retirement later. For patients with OUD however, an increase in delay discounting can lead to the sacrifice of physical health, or risk legal involvement in the acquisition of the reward.

The delay discounting and presentation of behaviors as motivated by tolerance and withdrawal issues incorporate the biological and psychological factors inherent in the biopsychosocial model. The main psychological focus, however, dealt with the link between

adverse childhood experiences (ACEs), trauma history and SUDs/OUDs. According to Anda et al., (2006), there is a direct correlation between having four or more ACE's and substance use risk, particularly as it relates to IV drug use. Heritability of trauma and its impact on risk for psychological problems in offspring was also touched on, as described by Santavirta, Santavirta, and Gilman, (2017). Understanding the link between traumatic events in childhood and SUD's/OUD's allows a more humanistic and empathetic view of these conditions to develop. This also ties into the social determinants of the development of SUD/OUD.

Communication strategies were demonstrated and practiced among the participants. Motivational enhancement is a communication strategy of meeting people where they are in terms of their readiness for change (Fornili, Burda, & Selby, 2018). The two key tenets of motivational enhancement are to avoid pushing someone who is not ready to change and to gently prepare them for change. The specific motivational enhancement techniques that were covered included the elicitation of self-motivating statements, affirming the patient, and handling resistance. Eliciting self-motivating statements is a technique designed to get patients to state their own reasons for behavior change as opposed to telling the patient what to do; affirming the patient involves finding opportunities to reinforce the patient and, in particular, his/her motivation to strengthen the relationship and contribute to patient empowerment; handling resistance consists of strategies to effectively respond to patient resistance when discussing issues with OUD (Miller, Zweben, DiClemente, & Rychtarik, 1995). A handout with key points about these techniques was provided to the participants (see Appendix E).

Participants were given a pamphlet with information about treatment options and resources for homelessness, OUD and SUD (Ice House Inc., n.d.).that could be distributed to their patients. This provides patients with information about treatment options, and served as a

resource for AGPCNP/FNP students to have a greater knowledge of the local programs and supports available to improve the individual patient experience as well as the greater opioid crisis.

Ethical Considerations and Institution Review

This was a quality improvement project reviewed by the University of Louisville Institutional Review Board and deemed not human subjects research. Therefore, the project did not require full IRB review. There was no identifying information collected, and all institutional guidelines were followed.

Project Design

A pretest-post test design was used for this project.

Measures

The Drugs and Drug User's Problems Perceptions Questionnaire (DDPPQ) was used to measure student attitudes and therapeutic commitment towards working with OUD patients (see Appendix A). The DDPPQ is a 22-item survey, derived from the original alcohol and alcohol problems perceptions questionnaire (AAPPQ) and measures attitude towards working with and therapeutic commitment towards SUD patients. The scale utilizes a 7-point Likert scale to rank the extent of their agreement with a series of questions about work with SUD patients, with 1 meaning "strongly agree" and 7 meaning "strongly disagree". Lower scores mean more positive outlooks, and higher scores mean more negative outlooks.

The DDPPQ demonstrated acceptable test-retest reliability ($p=0.14$) and good internal consistency with an alpha coefficient of 0.87 (Watson, MacLaren, & Kerr, 2007). The DDPPQ contains five component subscales. Component 1 consists of seven items related to role adequacy and has an alpha coefficient on 0.94 (Watson, MacLaren, & Kerr, 2007). Component 2

consists of three items related to role support, and has an alpha coefficient of 0.78 (Watson, MacLaren, & Kerr, 2007). Component 3 consists of four items related to job satisfaction with an alpha coefficient of 0.80 (Watson, MacLaren, & Kerr, 2007). Component 4 consists of four items concerning role-related self-esteem and has an alpha coefficient of 0.69 (Watson, MacLaren, & Kerr, 2007). Component five consists of two items related to role legitimacy, and has an alpha coefficient of 0.89 (Watson, MacLaren, & Kerr, 2007).

The participants also completed an Adult Gerontology Primary Care and Family Nurse Practitioner Confidence in Caring for Persons Experiencing OUD Scale (NPCS) developed by the author for this project (see Appendix B). This measured AGPCNP and FNP confidence level in care provision to persons with co-occurring OUD in five specific domains. These included approaching patients with OUDs about their condition, engaging in motivational enhancement techniques, instilling hope, providing resources and maintaining a therapeutic mindset. The scale utilized a 5-point Likert scale with 1 being “not at all confident” and 5 being “totally confident”.

A process evaluation was completed following the presentation of the education modules (see Appendix C). The purpose of the process evaluation was for the students to rate the presenters and efficacy of the intervention in meeting three primary objectives: examining the importance of stigma reduction in caring for SUD/OUD patients by AGPCNP/FNP’s, demonstrating motivational enhancement communication techniques for use with clients with OUD/SUD, and discussing practices and resources to increase confidence in care provision for clients with OUD/SUD. This was rated on a 4-point Likert scale with 1 being “strongly disagree” and 4 being “strongly agree”.

The demographic information sheet was completed (see Appendix D). This contained questions to collet non-identifying, demographic data including age, race, gender, current

position, years in current position, years in nursing related field, prior experience in mental health or substance use treatment, and highest degree completed.

Data Collection

At the beginning of the class session, all participants received a numbered packet containing the DDPPQ, Adult Gerontology Primary Care and Family Nurse Practitioner Confidence in Caring for Persons Experiencing OUD Scale. The participants completed these measures as well as the demographic data. The completion of these scales provided the baseline prior to the intervention. The educational intervention, both didactic and contact-based components, was then presented. Immediately following the intervention, the participants received a second packet with the DDPPQ, AGPC/FNP Confidence in Caring for Persons Experiencing OUD Scale, and the process evaluation form. These packets were numbered corresponding to the original packets. There was no identifying information associated with the responses. The survey responses were kept in a locked office at the University of Louisville Health Science Campus, with electronic copies of the information kept securely on an encrypted laptop computer. All HIPAA policies and procedures were followed.

Data Analysis

Data analysis was performed using SPSS v.22. Descriptive statistics were used to summarize demographic and clinical characteristics. Paired t-tests were used to examine the impact of the intervention on the DDPPQ and NPCS participant scores. Pearson Product Moment Correlation was used to determine the relationship among the dependent variables and demographic characteristics.

Results

There were 17 total participants (N=17) for this intervention. The majority of participants were 20-30 years old (n = 10; 58.1%), Caucasian (n = 15; 88%), and identified as female (n = 16; 94%). All were BSN prepared and enrolled in the Family Nurse Practitioner track or the Adult-Gerontology Primary Care Nurse Practitioner track of the DNP program. The majority of participants worked in nursing for six years or less (n = 12; 70.6%). Approximately, one-third (n = 6; 35%) had past mental health or substance use disorder related work experience.

A paired-samples t-test was conducted to evaluate the impact of the intervention on participants' scores on the DDPPQ. There was a statistically significant decrease in DDPPQ scores from Time 1 (M=77.75, SD=22.65) to Time 2 (M=55.75, SD= 18.25), t (4.45), p <.01 (two-tailed). The mean decrease in DDPPQ scores was 22 with a 95% confidence interval ranging from 11.45 to 32.55 (Table 1).

The six subscales were also analyzed utilizing paired-samples t-tests to evaluate the impact of the intervention on participants' scores on the respective subscales (Table 1). A paired-samples t-test was conducted to evaluate the impact of the intervention on participants' scores on the DDPPQ subscale related to role adequacy (subscale 1). There was a statistically significant decrease in subscale 1 scores from Time 1 (M=29.24, SD=6.25) to Time 2 (M=20.65, SD=6.61), t (4.82), p < .01 (two-tailed). The mean decrease in subscale 1 scores was 8.59 with a 95% confidence interval ranging from 4.81 to 12.37.

A paired-samples t-test was conducted to evaluate the impact of the intervention on participants' scores on the DDPPQ subscale that deals with role legitimacy (subscale 2). There was a statistically significant decrease in subscale 2 scores from Time 1 (M=8.06, SD=3.38) to Time 2 (M=5.94, SD=2.83), t (3.57), p < .01 (two-tailed). The mean decrease in subscale 2 scores was 2.12 with a 95% confidence interval ranging from .86 to 3.38.

A paired-samples t-test was conducted to evaluate the impact of the intervention on participants' scores on the DDPPQ subscale that deals with role support (subscale 3). There was a decrease in subscale 3 scores from Time 1 (M=14.47, SD=15.44) to Time 2 (M=7.06, SD=3.70), t (2.06), p .056 (two-tailed). The mean decrease in subscale 3 scores was 2.12 with a 95% confidence interval ranging from .86 to 3.38. This result was not statistically significant.

A paired-samples t-test was conducted to evaluate the impact of the intervention on participants' scores on the DDPPQ subscale that deals with motivation (subscale 4). There was a statistically significant decrease in subscale 4 scores from Time 1 (M=3.29, SD=1.50) to Time 2 (M=2.65, SD=1.41), t (3.10), $p < .05$ (two-tailed). The mean decrease in subscale 4 scores was 0.65 with a 95% confidence interval ranging from .20 to 1.10.

Subscale 5 dealt with role-related self-esteem. There was a decrease in subscale 5 scores from Time 1 (M=8.89, SD=3.35) to Time 2 (M=7.65, SD=3.41), t (1.84), p .09 (two-tailed). The mean decrease in subscale 5 scores was 1.24 with a 95% confidence interval ranging from -.19 to 2.66. This decrease was not statistically significant. Subscale 6 concerned work satisfaction, and there was a decrease in subscale 6 scores from Time 1 (M=14.19, SD=5.04) to Time 2 (M=11.88, SD=5.06), t (1.87), p .08 (two-tailed). The mean decrease in subscale 6 scores was 2.31 with a 95% confidence interval ranging from -.32 to 4.94. This result was not statistically significant.

A paired-samples t-test was conducted to evaluate the impact of the intervention on participants' scores on the NPCS. There was a statistically significant increase in NPCS scores from Time 1 (M=15.18, SD=3.56) to Time 2 (M=20.94, SD= 2.41), t (-9.10), $p <.01$ (two-tailed). The mean increase in NPCS scores was -5.76 with a 95% confidence interval ranging from -7.11 to -4.42.

Table 1

Mean Total Pre and Post Intervention Scores for DDPPQ, DDPPQ Subscales and NPCS

	Pre Education Session Mean (SD)	Post Education Session Mean (SD)	Confidence Interval	t value	Sig. (2-tailed)
DDPPQ**	77.75 (22.65)	55.75 (18.25)	11.45-32.55	4.45	<.001
Role Adequacy**	29.24 (6.25)	20.65 (6.61)	4.81-12.37	4.82	<.001
Role Legitamcy*	8.06 (3.34)	5.94 (2.84	.86-3.38	3.57	.003
Role Support	14.47 (15.44)	7.06 (3.70)	-.20-15.02	2.06	.056
Motivation*	3.29 (1.49)	2.65 (1.41)	.20-1.09	3.10	.007
Role-related Self-esteem	8.88 (3.35)	7.65 (3.41)	-.19-2.66	1.83	.085
Role Support	14.19 (5.04)	11.88 (5.06)	-.32-4.94	1.87	.081
NPCS**	15.06	20.88	-7.25 - -4.38	-8.65	<.001

* Correlation is significant at the 0.05 level (two-tailed)
** Correlation is significant at the 0.01 level (two-tailed)

Other variables were analyzed for correlation among pre and post measures. These variables included age, gender, years in current role, and years of prior mental health experience. There was a strong positive correlation between age and NPCS pretest scores ($r=.596$ $n=17$ $p<.05$) with increased age correlated with increased levels of nurse practitioner initial confidence

in providing care for patients with co-occurring OUD (Table 2). None of the other analyses demonstrated significant correlations.

Table 2

Correlation Among Pre and Post DDPPQ and NPCS and Prior MH/SUD Experience

	1	2	3	4	**5**
1. DDPPQ Pretest	--				
2. DDPPQ Posttest	.549*	--			
3. NPCS Pretest	-.293	-.136	--		
4. NPCS Posttest	-.354	-.483*	.679**	--	
5. Prior MH/SUD Experience	.009	-.150	.497*	.334	--

* Correlation is significant at the 0.05 level (two-tailed)
** Correlation is significant at the 0.01 level (two-tailed)

Of the 17 total participants, 15 completed the post session evaluation. The majority of participants strongly agreed that the objectives were met: 93.3% strongly agreed that examining the importance of stigma reduction was met; 80% strongly agreed that motivational enhancement techniques were demonstrated; 93.3% of participants strongly agreed that practices and resources to increase confidence in care provision were discussed. All of the participants who completed the post session evaluation (n=15) indicated that all three objectives were met.

A latent content analysis was completed based on elements of the intervention as codes. Of the 17 participants who completed a pre-test, ten provided comments. There were 21 comments made by the respondents. These fell into three main categories: general comments, most helpful, and areas for improvement. There was only one general comment which was “very

friendly and interactive". Regarding the most helpful category, there were three main elements identified: case studies, contact, and resources. There were four respondents who identified case studies as being most helpful; one stated "The case studies were helpful in sparking discussion and helping to cement ideas that were presented." Contact was identified as most helpful by four respondents; one identified the "real world experiences." The resources provided were identified as most helpful by three respondents. One respondent also identified the motivational enhancement techniques as most helpful, while another identified the statistics related to the opioid crisis.

The comments on suggestions for improvement were more varied. Areas of improvement were: implementation of early identification strategies; pictures and images of patients with OUD/SUD to demonstrate the physical toll these conditions take; and an increase attention/practice in motivational enhancement techniques. Two comments confirmed the usefulness and satisfaction with the session with comments to improvement of "None", and "Do it for all nursing students".

Discussion

This project demonstrated that a mixed-methods contact-didactic education intervention yielded a reduction in stigma and an increase in nurse practitioner student confidence in providing care for patients with co-occurring OUD. The decrease in stigma was demonstrated in the statistically significant reduction in mean DDPPQ scores post intervention. Further, there was also a statistically significant negative correlation noted between nurse practitioner confidence levels as measured by the NPCS, and stigma as measured by the DDPPQ. Suggesting that as the confidence level in the practitioner rose, stigma associated with drug addiction decreased. These findings support the literature in which Griffiths et al. (2014) described a statistically significant

reduction in stigma regarding mental illnesses even after a single educational intervention. Conversely, the mean scores on the NPCS (confidence measure) had a statistically significant increase after the intervention. The participants identified as most helpful the contact-based component, the case studies, and the resources provided.

This project did not find a significant difference in pre or post intervention levels of stigma being associated with increased contact with OUD patients as determined by having responded affirmatively to prior MH/SUD experience. This contradicts the findings from van Boeckel et al., (2013) who found a relationship between those working in psychiatry and addiction specialists and having higher regard for patients with SUDs. This could be the result of these participants having been in graduate school working towards advanced practice nursing degrees whereas the aforementioned study focused on providers. It should also be noted that no respondent was a practitioner at the time of the intervention whereas the population in the van Boeckel study consisted of providers and did not take place in academia. The intervention in this project framed OUD as a medical condition similar to other diseases subject to exacerbation and remission. The reduction in stigma that resulted from this intervention is consistent with the work of Capurso and Shorter, (2017) who found that moralistic as opposed to medical views of addictive disorders contributed to stigma.

Limitations

There were several limitations to this quality improvement project. The sample size was small and consisted only of educated participants in an academic setting, which could reduce initial rates of stigma. The sample was also relatively homogenous in terms of racial/ethnic background and gender. The results were not generalizable to other settings as the sample was not representative of the population at large. The measure to assess nurse practitioner's

confidence was developed for this project, so the psychometric properties of this scale have not been examined. The intervention itself was also comparatively brief and there were no mechanisms in place to assess or monitor the impact of the educational intervention over the long term. The NPCS was designed by the author for this specific intervention and not a validated instrument.

Conclusion

This project demonstrated the efficacy of utilizing a mixed-methods contact-didactic education module to both increase primary care nurse practitioner confidence and reduce stigma towards primary care patients with co-occurring OUD. The intervention was carried out in 100 minutes and all participants agreed that the three objectives were met. Understanding the importance of stigma reduction in providing care to primary care patients with co-occurring OUD, and more broadly, in combating the opioid epidemic, the utility of this intervention in taking meaningful steps to accomplish these aims is clear.

The intervention utilized in this project could be readily implemented into the regular curriculum for AGPC/FNP students. There was no cost associated with the intervention itself, and the material is relevant to a broader understanding of addictive disorders. Moving forward, the population could be broadened to include undergraduate nursing students in an academic setting, or floor nursing staff in a clinical setting. It is also worth noting that the NPCS could be validated as an instrument to measure confidence in primary care nurse practitioners or other primary healthcare workers.

References

Ahrnsbrak, R., Bose, J., Hedden, S. L., Lipari, R. N., & Park-Lee, E. (2017). Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health (HHS Publication No. SMA 17-5044, NSDUH Series H-52). *Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration (SAMHSA). NSDUH Data Review. https://www. samhsa. gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016. htm. Published September*.

Anda, R. F., Felitti, V. J., Bremner, J. D., Walker, J. D., Whitfield, C. H., Perry, B. D., ... & Giles, W. H. (2006). The enduring effects of abuse and related adverse experiences in childhood. *European Archives of Psychiatry and Clinical Neuroscience*, *256*(3), 174-186.

Avery, J., & Zerbo, E. (2015). Improving psychiatry residents' attitudes toward individuals diagnosed with substance use disorders. *Harvard Review of Psychiatry*, *23*, 296-300.

Bartlett, R., Brown, L., Shattell, M., Wright, T., & Lewallen, L. (2013). Harm reduction: Compassionate care of persons with addictions. *Medsurg Nursing : Official Journal of the Academy of Medical-Surgical Nurses*, *22*, 349–358.

Capurso, N. A., & Shorter, D. I. (2017). Changing attitudes in graduate medical education: A commentary on attitudes towards substance use and schizophrenia by Avery et al. *The American Journal onAaddictions*, *26*(1), 83-86.

Corrigan, P.W., Morris, S., Michaels, P.J., Rafacz, J.D., and Rüsch, N. (2012). Challenging the public stigma of mental illness: A meta-analysis of outcome studies. *Psychiatric Services, 63*(10), 963-973.

Crowley, R. A., & Kirschner, N. (2015). The integration of care for mental health, substance

abuse, and other behavioral health conditions into primary care: executive summary of an American College of Physicians position paper. *Annals of Internal Medicine, 163*(4), 298-299.

Dion, K. (2015). *Injection drug users' perceptions of received nursing care: A case study* (Doctoral dissertation) Retrieved from https://scholarworks.umass.edu/dissertations_2/354/.

Ersöğütçü, F., & Karakaş, S. A. (2016). Social functioning and self-esteem of substance abuse patients. *Archives of Psychiatric Nursing, 30,* 587-592. doi: 10.1016/j.apnu.2016.03.007

Fornili, K., Burda, C., & Selby, V. (2018). How nurses can foster positive interactions with patients who have substance use disorders [PowerPoint slides]. Retrieved from https://ireta.org/resources/how-nurses-can-foster-positive-interactions-with-patients-who-have-substance-use-disorders/.

Griffiths, K. M., Carron-Arthur, B., Parsons, A., & Reid, R. (2014). Effectiveness of programs for reducing the stigma associated with mental disorders. A meta-analysis of randomized controlled trials. *World Psychiatry, 13*(2), 161-175.

Hauser, C. (2017, February 13). A Spike in overdose emergency calls is seen in Kentucky. *The New York Times.* Retrieved from https://www.nytimes.com

Henderson, N. L., & Dressler, W. W. (2017). Medical disease or moral defect? Stigma attribution and cultural models of addiction causality in a university population. *Culture, Medicine, and Psychiatry*, *41*, 480-498.

Ice House Incorporated. (n.d.). *Help is Available* [Pamphlet]. Louisville, KY: Ice House Inc.

Karakula, S. L., Weiss, R. D., Griffin, M. L., Borges, A. M., Bailey, A. J., & McHugh, R. K.

(2016). Delay discounting in opioid use disorder: Differences between heroin and prescription opioid users. *Drug and Alcohol Dependence, 169,* 68-72. doi: 10.1016/j.drugalcdep.2016.10.009

Kennedy-Hendricks, A., Barry, C. L., Gollust, S. E., Ensminger, M. E., Chisolm, M. S., & McGinty, E. E. (2017). Social stigma toward persons with prescription opioid use disorder: Associations with public support for punitive and public health–oriented policies. *Psychiatric Services, 68*, 462-469. doi: 10.1176/appi.ps.201600056

Khenti, A., Mann, R., Sapag, J. C., Bobbili, S. J., Lentinello, E. K., van der Maas, M., ... & Sanches, M. (2017). Protocol: a cluster randomised control trial study exploring stigmatisation and recovery-based perspectives regarding mental illness and substance use problems among primary healthcare providers across Toronto, Ontario. *BMJ Open*, *7*(11), e017044.

Kulesza, M., Watkins, K. E., Ober, A. J., Osilla, K. C., & Ewing, B. (2017). Internalized stigma as an independent risk factor for substance use problems among primary care patients: Rationale and preliminary support. *Drug and Alcohol Dependence*, *180*, 52-55. doi: 10.1016/j.drugalcdep.2017.08.002

Matta, A. D., Gonçalves, F. L., & Bizarro, L. (2012). Delay discounting: Concepts and measures. *Psychology & Neuroscience, 5*(2), 135-146.

Miller, W. R. (1995). *Motivational enhancement therapy manual: A clinical research guide for therapists treating individuals with alcohol abuse and dependence*. DIANE Publishing.

National Academies of Sciences, Engineering, and Medicine. (2016). *Ending discrimination against people with mental and substance use disorders: The evidence for stigma change*. National Academies Press.

Pescosolido, B. A., Martin, J. K., Lang, A., & Olafsdottir, S. (2008). Rethinking theoretical approaches to stigma: A framework integrating normative influences on stigma (FINIS). *Social Science & Medicine, 67,* 431-440.

Pescosolido, B. A., & Martin, J. K. (2015). The stigma complex. *Annual Review of Sociology, 41*, 87-116.

Santavirta, T., Santavirta, N., & Gilman, S. E. (2018). Association of the World War II Finnish evacuation of children with psychiatric hospitalization in the next generation. *JAMA Psychiatry*, *75*(1), 21-27.

Sederer, L. I., & Marino, L. A. (2018). Ending the opioid epidemic by changing the culture. *Psychiatric Quarterly*, *89*(4), 891-895.

Tilley, J. C., & Ingram, V. (2018). *2017 Combined Annual Report Kentucky Office of Drug Control Policy - AND - Kentucky Agency for Substance Abuse Policy* (Rep.). Retrieved from https://odcp.ky.gov

van Boekel, L. C., Brouwers, E. P., van Weeghel, J., & Garretsen, H. F. (2013). Healthcare professionals' regard towards working with patients with substance use disorders: Comparison of primary care, general psychiatry and specialist addiction services. *Drug and Alcohol Dependence*, *134*, 92-98. doi:10.1016/j.drugalcdep.2013.09.012

Wakeman, S. E., & Rich, J. D. (2018). Barriers to medications for addiction treatment: How stigma kills. *Substance Use & Misuse*, *53*, 330-333.

Watkins, K. E., Paddock, S. M., Hudson, T. J., Ounpraseuth, S., Schrader, A. M., Hepner, K. A., & Stein, B. D. (2017). Association between process measures and mortality in individuals with opioid use disorders. *Drug and Alcohol Dependence*, *177*, 307-314. doi:10.1016/j.drugalcdep.2017.03.033

Watson, H., Maclaren, W., & Kerr, S. (2007). Staff attitudes towards working with drug users: Development of the Drug Problems Perceptions Questionnaire. *Addiction, 102,* 206-215.

Appendix A: DDPPQ

Drug and Drug Problems Perception Questionnaire (DDPPQ)

Please circle one number for each question.	**Strongly Agree**						**Strongly Disagree**
1. I feel I have a working knowledge of drugs and drug related problems.	1	2	3	4	5	6	7
2. I feel I know enough about the causes of drug problems	1	2	3	4	5	6	7
3. I feel I know enough about the physical effects of drug use to carry out my role when working with drug users.	1	2	3	4	5	6	7
4. I feel I know enough about the psychological effects of drug use to carry out my role when working with drug users.	1	2	3	4	5	6	7
5. I feel I know enough about the factors which put people at risk of developing drug problems to carry out my role when working with drug users.	1	2	3	4	5	6	7
6. I feel I know how to counsel drug users over the long term.	1	2	3	4	5	6	7
7. I feel I can appropriately advise my patients about drugs and their effects.	1	2	3	4	5	6	7
8. I feel I have the right to ask patients questions about their drug use when necessary.	1	2	3	4	5	6	7
9. I feel that my patients believe I have the right to ask them questions about their drug use when necessary.	1	2	3	4	5	6	7
10. I feel I have the right to ask a patient for any information that is relevant to their drug problems.	1	2	3	4	5	6	7
11. If I felt the need when working with drug users I could easily find someone with whom I could discuss any personal difficulties I might encounter.	1	2	3	4	5	6	7
12. If I felt the need when working with drug users I could easily find someone who would help me clarify my professional responsibilities.	1	2	3	4	5	6	7
13. If I felt the need I could easily find someone who would be able to help	1	2	3	4	5	6	7

me formulate the best approach to a drug user							
14. I want to work with drug users	1	2	3	4	5	6	7
15. I feel that there is little I can do to help drug users.	1	2	3	4	5	6	7
16. In general, I have less respect for drug users than for most other patients I work with.	1	2	3	4	5	6	7
17. I feel I do not have much to be proud of when working with drug users.	1	2	3	4	5	6	7
18. At times I feel I am no good at all with drug users.	1	2	3	4	5	6	7
19. On the whole, I am satisfied with the way I work with drug users.	1	2	3	4	5	6	7
20. In general, one can get satisfaction from working with drug users.	1	2	3	4	5	6	7
21. In general, it is rewarding to work with drug users.	1	2	3	4	5	6	7
22. In general, I feel I can understand drug users.	1	2	3	4	5	6	7

Appendix B: Adult Gerontology Primary Care and Family Nurse Practitioner Confidence in Caring for Persons Experiencing OUD Scale

Adult Gerontology Primary Care and Family Nurse Practitioner Confidence in Caring for Persons Experiencing OUD Scale

(For the following situations, please circle one answer choice only on a scale of 1-5 where 1 means "not at all confident", and 5 means "totally confident")

1. Approaching patients with opioid use disorders about their condition(s).

   1 2 3 4 5

   Not at all confident Totally confident

2. Engaging in motivational enhancement techniques with patients with opioid use disorders

   1 2 3 4 5

   Not at all confident Totally confident

3. Instilling hope in patients with opioid use disorders.

   1 2 3 4 5
   Not at all confident Totally confident

4. Providing resources or referring patients with opioid use disorders.

   1 2 3 4 5

   Not at all confident Totally confident

5. Maintaining a therapeutic mindset when providing care for patients with opioid use disorders.

   1 2 3 4 5

   Not at all confident Totally confident

Appendix C: Process Evaluation

Increasing the Confidence of Adult Gerontology Primary Care and Family Nurse Practitioner Students in Caring for Patients with Preexisting Opioid Use Disorder

Please provide feedback regarding this educational presentation. Please indicate the level of agreement with the following statements regarding this presentation.

Objectives:	STRONGLY AGREE	AGREE	DISAGREE	STORNGLY DISAGREE
Met objective: Examine the importance of reducing stigma in caring for clients with SUD/OUD by AGPCNP/FNP students.	4	3	2	1
Met objective: Demonstrate motivational enhancement communication techniques for use with clients with SUD/OUD	4	3	2	1
Met objective: Discuss practices and resources to increase confidence in caring for clients with SUD/OUD by AGPCNP/FNP students.	4	3	2	1
Amy Spain-Duncan				
Addressed the objectives	4	3	2	1
Was clear in presentation	4	3	2	1
Chris Hannon				
Addressed the objectives	4	3	2	1
Was clear in presentation	4	3	2	1

Please provide comments regarding this presentation:

Most helpful aspect of this presentation:

Recommendations for improvement of this presentation:

Appendix D: Demographic Information Sheet

[redacted]

Please circle the appropriate response:

1. Age: 20-24 25-30 31-35 36-40 40-45 45-50 50+
2. Race/ethnicity: Caucasian Hispanic/Latino Black/African-American Native American Asian/Pacific Islander Other Prefer not to answer
3. Gender: Male Female Other Prefer not to answer
4. Current Position: RN FNP AGPCNP Other
5. Years in current position: <1-2 3-6 7-10 10 or more
6. Years in nursing related field: <1-2 3-6 7-10 11-15 16 or more
7. Prior professional experience with mental health or substance use disorders:

   Yes No

   a. If yes how many years: <1-5 6-10 10+ Not applicable
8. Highest degree completed: Bachelor's Degree Master's Degree

Appendix E: Motivational Enhancement Resource Sheet

Eliciting Self- Motivating Statements:

Try to move the patient toward

- Being open to suggestions or discussion about opioid use
- Discussing problems related to opioid use (present or potential)
- Expression of a desire to change his/her behavior

Example: Tell me what you've noticed about your opioid use; has it changed over time?

Affirming the Patient:

Be supportive and encouraging

Example: "I think it shows a lot of insight for you to recognize the risk to your health that your opioid use poses."

Responding to Resistance:

Examples of patient resistance

- Defensiveness, denial, arguing
- Interrupting, minimizing, changing the subject

What to do

- Reflect what the patient is saying
    - May prompt the opposite (desired) response
- Shifting focus
    - If a patient says, "I can't quit", then say "We are just talking, maybe you're not ready to quit but we can talk about ways to mitigate some of the risk/damage"
- Rolling with resistance
    - Going with where the patient is- i.e. "Maybe you'll decide you're not ready, but here is some information for you to look over."

Table 1

Mean Total Pre and Post Intervention Scores for DDPPQ, DDPPQ Subscales and NPCS

	Pre Education Session Mean (SD)	Post Education Session Mean (SD)	Confidence Interval	t value	Sig. (2-tailed)
DDPPQ**	77.75 (22.65)	55.75 (18.25)	11.45-32.55	4.45	<.001
Role Adequacy**	29.24 (6.25)	20.65 (6.61)	4.81-12.37	4.82	<.001
Role Legitamcy*	8.06 (3.34)	5.94 (2.84	.86-3.38	3.57	.003
Role Support	14.47 (15.44)	7.06 (3.70)	-.20-15.02	2.06	.056
Motivation*	3.29 (1.49)	2.65 (1.41)	.20-1.09	3.10	.007
Role-related Self-esteem	8.88 (3.35)	7.65 (3.41)	-.19-2.66	1.83	.085
Role Support	14.19 (5.04)	11.88 (5.06)	-.32-4.94	1.87	.081
NPCS**	15.06	20.88	-7.25 - -4.38	-8.65	<.001

* Correlation is significant at the 0.05 level (two-tailed)
** Correlation is significant at the 0.01 level (two-tailed)

Table 2

Correlation Among Pre and Post DDPPQ and NPCS and Prior MH/SUD Experience

	1	2	3	4	**5**
1. DDPPQ Pretest	--				
2. DDPPQ Posttest	.549*	--			
3. NPCS Pretest	-.293	-.136	--		
4. NPCS Posttest	-.354	-.483*	.679**	--	
5. Prior MH/SUD Experience	.009	-.150	.497*	.334	--

* Correlation is significant at the 0.05 level (two-tailed)
** Correlation is significant at the 0.01 level (two-tailed)